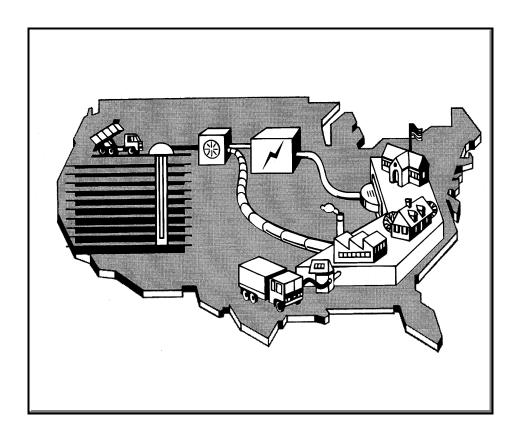


Landfill Gas-to-Energy Project Opportunities

Landfill Profiles for the State of Connecticut





EPA Landfill Methane Outreach Program



The EPA Landfill Methane Outreach Program, a key component of the United State's *Climate Change Action Plan*, encourages the use of landfill gas (LFG) as an energy resource. EPA assists utilities,

municipal and private landfill owners and operators, tribes, and state agencies in reducing methane emissions from landfills through the development of profitable landfill energy recovery projects. Methane captured from landfills can be transformed into a cost-effective fuel source for electricity, heat, boiler and vehicular fuel, or sale to a pipeline. EPA estimates there are approximately 200 landfill methane recovery projects in the U.S. and that up to 750 landfills could install economically viable landfill energy projects.

The Landfill Methane Outreach Program includes five important components: the State Ally, Energy Ally, Industry Ally, Community Partner, and Endorser programs. EPA establishes separate alliances with state agencies, energy providers (including investor-owned, municipal and other public power utilities and cooperatives), key trade and public sector associations, members of the landfill gas development industry (including developers, engineers, equipment vendors, and others) and local communities, municipalities and landfill owner/operators through a Memorandum of Understanding (MOU). By signing the MOU, each Ally/Partner acknowledges a shared commitment to the promotion of landfill gas-to-energy recovery at solid waste landfills, recognizes that the widespread use of landfill gas will reduce emissions of methane and other gases, and commits to undertake activities to enhance development of this resource. In return, EPA agrees to provide landfill gas-to-energy project assistance and public recognition of the Allies' and Partners' participation in the program.

Introduction

Since 1994 the U.S. EPA's Landfill Methane Outreach Program (LMOP) has participated in an ongoing effort to gather information on Municipal Solid Waste landfills (MSW). A key component of the LMOP is to provide MSW landfill owners and operators, project developers, utilities, and other potential project participants with information on MSW landfills that may offer attractive energy development opportunities. This document presents state specific landfill information, hereinafter referred to as the landfill profiles. These profiles are useful to evaluate the potential for developing landfill gas-toenergy projects (LFGTE). EPA assembled this information from state and local sources as well as various national solid waste publications, landfill owners and operators, and project developers.

The EPA has prepared a separate document to describe the methodology used to develop the state-specific landfill profiles and estimate the benefits of using LFGTE as an energy source. The document, Landfill Gas-to-Energy Project Opportunities, Background Information on Landfill Profiles, contains background information on gas collection and use, describes the data fields according to the five sections listed on the landfill profiles, and where applicable, illustrates calculations and default values used to derive estimates. EPA strongly recommends that users read the document prior to using the landfill profiles. Users can obtain the document by calling the LMOP hotline at 1-888-STAR-YES.

Data Sources

- EPA-ORD Landfill Gas Utilization-Survey (Thorneloe, 1997)
- Directory and Atlas of Solid Waste Disposal Facilities (SWA, 1994)
- Implementation Guide for Landfill Gas Recovery Projects in the Northeast (SCS, 1994)
- Landfill Gas-to-Energy 1994-1995 Activity Report (SWT, 1994)
- Methane Recovery from Landfill Yearbook (GAA, 1994)
- · Project developers, landfill owners, and operators
- · State and local records
- · Survey of Landfill Gas Generation Potential (EPRI, 1992)
- U.S. Landfill Directory (SWANA, 1992)

Landfill Classification

To facilitate the use of available landfill information, EPA has categorized the landfills into five categories: Current Project, ¹ Candidate Project, Shutdown, Other, and Unknown waste-in-place (WIP). These categories are based on the status of the landfill's LFGTE project(s) and WIP. The generation of methane is a function of many factors, the most critical being the amount of waste-in-place and the number of years the waste has been in the landfill. Peak methane generation occurs soon after closure; therefore, the longer the landfill has been closed, the less attractive it becomes for methane recovery. Based on the general timing of peak methane generation, EPA assumes that landfills that ceased accepting waste prior to 1993 have a low probability of generating enough methane to make a gas recovery project economical. Consequently, landfills need to be operating in 1993 to be considered as having a Candidate Project.

Landfill Categorizes

Current Project:

 Landfill with operational LFGTE project or landfill with LFGTE project under construction.

Candidate Project:

- Landfill with a potential or planned LFGTE utilization project; or
- Landfill is currently operating or closed after 1993; and has more than 1,000,000 tons of municipal solid waste-inplace.²

Shutdown:

· Landfill with shutdown LFGTE project.

Other

 Landfill has less than 1,000,000 tons of municipal solid waste-in-place with no current or planned LFGTE project.

Unknown WIP:

 Landfill with insufficient data to determine the waste-inplace

State Summary

State-specific landfill profile information is summarized in three exhibits. Exhibit 1 presents a summary of the state-specific potential for LFG utilization energy by landfill category. Exhibit 2 summarizes the emissions avoided by fossil fuel displacement for electricity generation and direct use projects. Exhibit 3 presents an index of the state-specific MSW landfills, referenced by category, landfill name and general characteristics.

² By modeling the relationship between WIP and methane generation, a cut-off of 1,000,000 tons of WIP was established; landfills having at least 1,000,000 tons of WIP are considered candidate landfills.



¹ Current projects illustrate the wide range of successful project development options.

Exhibit 1: Connecticut MSW Landfill Summary

Category	No. of	Est. Capacity Potential		Est. CH4	Methane R		CO2 Equivalent of CH4 Reduction			
	Landfills	Electricity (MW)	Gas Capacity (mmBtu/hr)	Generation (tons/yr) (mmscf/d)				(tons/yr)		tion /yr)
					Potential	Current	Potential	Current		
Current	3	11	108	3	19,961	10,792	419,183	226,638		
Candidate	5	7	74	2	13,686	4,625	287,398	97,131		
Other	5	2	15	0	2,731	2,731 0		0 57,351		0
Unknown WIP	11									
Total	24	20	197	6	36,378 15,418		763,932	323,770		

Exhibit 2: Potential Connecticut Emissions Avoided by Fossil Fuel Displacement

Category		Electricity Generation Project						Direct Use Project				
	CO2 (tons/yr)			SO2 (tons/yr)			CO2 (tons/yr)			SO2 (tons/yr)		
	Coal	Oil	Natural Gas	Coal	Oil	Natural Gas	Coal	Oil	Natural Gas	Coal	Oil	Natural Gas
Current	85,242	69,963	47,044	539	450	0	60,110	49,336	33,174	547	288	0
Candidate	58,406	47,937	32,234	369	309	0	41,212	33,825	22,745	375	197	0
Other	12,629	10,365	6,970	80	67	0	8,224	6,750	4,539	75	39	0
Unknown WIP												
Total	156,277	128,265	86,247	988	826	0	109,546	89,911	60,457	997	524	1

Exhibit 3: Index of Landfills in Connecticut

Category	Landfill Name		WIP		Landfill	LFG Collected	LFG	Status of LFGTE	
		<2.5 million tons	2.5 to 4 million tons	>4 million tons	Operating in 1998		Utilization Project	Project	
Current	Groton LF	✓				✓	✓	Operational	
Current	Hartford LF	✓				✓		Construction	
Current	New Milford LF			✓		✓	✓	Operational	
Candidate	East Windsor LF	✓			✓			Planned	
Candidate	Manchester LF					✓		Planned	
Candidate	New Haven LF							Planned	
Candidate	Shelton LF	✓				✓		Shutdown	
Candidate	Windsor LF	✓			✓			Planned	
Other	Bristol LF	✓						Unknown	
Other	Canterbury LF	✓				✓		Unknown	
Other	Danbury LF	✓						Unknown	
Other	Putnam LF	✓						Unknown	
Other	Waterbury-North End LF	✓				✓		Unknown	
Unknown WIP	Bridgeport LF							Unknown	
Unknown WIP	East Hartford LF							Unknown	
Unknown WIP	Ellington LF					~		Unknown	
Unknown WIP	Hampton LF							Unknown	
Unknown WIP	Killingly LF							Unknown	
Unknown WIP	Meriden LF							Unknown	
Unknown WIP	Montville LF				✓			Unknown	
Unknown WIP	North Haven LF							Unknown	
Unknown WIP	Torrington LF							Unknown	
Unknown WIP	Wallingford LF							Unknown	
Unknown WIP	Windham LF				✓			Unknown	

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			East Windson	·LF		Landfill Cate	egory: Candidate	
		A. G	ENERAL LANDFILL	INFORMAT	ION			
Landfill Owner:	Boticel	lo, Inc.	F	Annual Accep	tance Rate	(tons):	37,000	
Landfill Owner Type:	Private		Y	Year Annual A	Acceptance	Rate Reported:	1994	
Alternative Landfill Na	me: Norcap		I	Design Capac	ity (tons):		959,808	
City:	East W	indsor	A	Acres Current	ly Landfille	ed (acres):	45	
County:	Hartfor	d	A	Average Dept	h (feet):			
State:	CT			1995 Waste-i	n-Place (tor	ns):	837,000	
Year Open:	1976		i	1998 Waste-ir	ı-Place (ton	as):	948,000	
Year Closed:	1999							
		I	B. LANDFILL GAS CO	DLLECTION	J			
Estimated Methane Ger	neration (mmsc	f/d):		0.66				
LFG Collection System	Status:		Planned					
Current LFG Collected (mmscf/d):								
Collection and Treatme	ent System Requ			No				
			C. LANDFILL GAS UT	FILIZATION	N			
Current Utilization:								
Utilization System	Status:	Planned						
Utilization System	Type:	Unknown						
Utilization System	Start Year:							
Electric Utility Pro	ovider(s):							
Natural Gas Provid	der(s):							
Energy Purchaser((s):							
Capacity:		Electrici	ty Generation Project (M	IW)	OR	Direct Use Project (mm	Btu/hr)	
Estimated Potentia	al Capacity:			2			21	
Current Capacity:	1 ,							
Planned Capacity:								
Utilities in County:		Connecticut	Light & Power Co; Fleto	cher Electric l	Light Co Inc	c		
•			RONMENTAL BENEF		_			
				tential		Curre	ent	
Methane Reduction (to	ns/vr)·		10	ichilai	3,819	Curre	0	
CO2 Equivalent of CH	- '	ns/vr)·			80,189		0	
CO2 Equivalent of CII-	+ Reduction (to	137 yr).			00,107			
Emissions Avoided by I	Fossil Fuel Disp	olacement:	Electricity Gen	eration Proje	ct	Direct Use I	Project	
			CO2 (tons/yr)	SO2 (to	ns/yr)	CO2 (tons/yr)	SO2 (tons/yr)	
		Coal:	16,575		105	11,499	105	
		Fuel Oil:	13,604		88	9,438	55	
	N	atural Gas:	9,147		0	6,346	0	
			E. CONTACT INFO	RMATION	-			
		Landfill (Landfill Operator		
Contact Name:	Dennis Boticel	lo						
Mailing Address:	321 Olcott Stre	eet		Perre	t Place			
5					-			
Phone Number:	203-643-8545			203-6	543-8545			
Fax Number:								
* Itallicized indicates vo	alues estimated	by EPA.	Dec	cember 5, 199	98	State: CT	Page: 1	

^{*} Itallicized indicates values estimated by EPA. December 5, 1998 State: CT



		A 0	Groton LF		Landfill Categor	y: Current			
			ENERAL LANDFILL INFO						
Landfill Owner:		of Groton		al Acceptance Rate		28,886			
Landfill Owner Type:	Public			Annual Acceptance	Rate Reported:				
Alternative Landfill N			_	n Capacity (tons):					
City:	Groton	_		Currently Landfille	ed (acres):	44			
County:	New Lo	ondon		ge Depth (feet):					
State:	CT			Waste-in-Place (tor		2,000,000			
Year Open:			1998 Waste-in-Place (tons): 2,000,0						
Year Closed: 1993 B. LANDFILL GAS COLLECTION									
		f/d):		0.19					
LFG Collection System			Operation	onal					
Current LFG Collected Collection and Treatm	,	uired Under NSI	PS/FG·	No					
Concetion and Treatm	ent System Requ		C. LANDFILL GAS UTILIZ						
Current Utilization:									
Utilization System	n Statue:	Operational							
Utilization System		Fuel Cell							
Utilization System		1996							
Electric Utility Pr		1770							
Natural Gas Prov									
Energy Purchaser	* *	Northeast U	tilities						
	(-).								
Capacity:		Electrici	ty Generation Project (MW)	OR	Direct Use Project (mmBtu	/hr)			
Estimated Potent	ial Capacity:			1		6			
Current Capacity:	:		(0.2					
Planned Capacity	:								
Utilities in County:		Bozrah Ligh	t & Power Co; Connecticut Li	ight & Power Co; G	roton, City of, Dept of Utilitie	es; Jewett C			
		D. ENVII	RONMENTAL BENEFITS (OF UTILIZATION	1				
			Potentia		Current				
Methane Reduction (to	ons/vr):		1 010,1111	1,099		0			
CO2 Equivalent of CH	- ·	ns/vr):		23,069		0			
Emissions Avoided by	Fossil Fuel Disp	olacement:	Electricity Generation	=	Direct Use Proj				
			CO2 (tons/yr)	SO2 (tons/yr)	CO2 (tons/yr)	SO2 (tons/yr)			
		Coal:	4,736	30	3,308	30			
		Fuel Oil:	3,887	25	2,715	16			
	N	atural Gas:	2,614	0	1,826	0			
			E. CONTACT INFORMA	TION					
		Landfill	Owner		Landfill Operator				
Contact Name:	Dawn Lemieux	Κ		Dawn Lemieux					
Mailing Address:	Town Office P	O Box		Town Office PO	Box				
Phone Number:	603-744-8849			203-441-6740					
Fax Number:									
				I					

* Itallicized indicates values estimated by EPA. December 5, 1998 State: CT Page:

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		Hartford Ll	F		Landfill Cate	egory: Current		
	A. G	ENERAL LANDFILL I	NFORMAT	ION				
Landfill Owner:		A	nnual Accep	tance Rate ((tons):	187,000		
Landfill Owner Type: Pub	lic	Y	ear Annual A	Acceptance	Rate Reported:	1994		
Alternative Landfill Name:		D	esign Capaci	ty (tons):				
City: Har	tford	A	cres Currentl	ly Landfille	d (acres):	87		
County: Har	tford	Average Depth (feet):						
State: CT		1	995 Waste-ii	n-Place (ton	as):	2,187,000		
Year Open: 198	0	1	998 Waste-in	-Place (ton	s):	2,187,000		
Year Closed: 199	5							
	I	B. LANDFILL GAS CO	LLECTION					
Estimated Methane Generation (m	mscf/d):		0.98					
LFG Collection System Status:		Ope	erational					
Current LFG Collected (mmscf/d):								
Collection and Treatment System I			No					
		C. LANDFILL GAS UT	ILIZATION	1				
Current Utilization:								
Utilization System Status:	Construction	1						
Utilization System Type:	Reciprocatin	g Engine						
Utilization System Start Year:	1998							
Electric Utility Provider(s):								
Natural Gas Provider(s):								
Energy Purchaser(s):								
Capacity:	Electrici	ty Generation Project (M	W) (OR	Direct Use Project (mm	Btu/hr)		
Estimated Potential Capacity:			3			31		
Current Capacity:			3			31		
Planned Capacity:								
Utilities in County:		Light & Power Co						
	D. ENVII	RONMENTAL BENEFI	TS OF UTII	LIZATION	T			
		Pot	ential		Curre			
Methane Reduction (tons/yr):				5,651		0		
CO2 Equivalent of CH4 Reduction	(tons/yr):			118,667		0		
Emissions Avoided by Fossil Fuel I	Displacement:	Electricity Gene	ration Projec	·t	Direct Use I	Project		
Emissions rivolacte by rossia rule r	sispiaeemeni.	CO2 (tons/yr)	SO2 (toi		CO2 (tons/yr)	SO2 (tons/yr)		
	Coal.	· · · · ·	202 (10)					
	Coal:	24,468		155	17,017	155		
	Fuel Oil:	20,082		129	13,966	81		
	Natural Gas:	13,503		0	9,391	0		
	7 1011	E. CONTACT INFOR	RMATION		1000			
	Landfill	Owner			Landfill Operator			
Contact Name:			David	l Martin				
Mailing Address:			179 A	Allyn Street				
Phone Number:			203-5	49-1751				
Fax Number:								
* Itallicized indicates values estima	ted by EPA.	Dec	ember 5, 199	8	State: CT	Page: 3		

Manchester LF Landfill Category: Candidate A. GENERAL LANDFILL INFORMATION Landfill Owner: City of Manchester Annual Acceptance Rate (tons): 30,000 Landfill Owner Type: Public 1994 Year Annual Acceptance Rate Reported: Alternative Landfill Name: Design Capacity (tons): City: Manchester Acres Currently Landfilled (acres): 62 County: Hartford Average Depth (feet): State: CTWaste-in-Place (tons): Year Open: 1998 Waste-in-Place (tons): Year Closed: 2004 B. LANDFILL GAS COLLECTION Estimated Methane Generation (mmscf/d): LFG Collection System Status: Operational Current LFG Collected (mmscf/d): Collection and Treatment System Required Under NSPS/EG: No C. LANDFILL GAS UTILIZATION Current Utilization: **Utilization System Status:** Planned Utilization System Type: Reciprocating Engine Utilization System Start Year: 2000 Electric Utility Provider(s): Natural Gas Provider(s): Energy Purchaser(s): Capacity: Electricity Generation Project (MW) OR Direct Use Project (mmBtu/hr) Estimated Potential Capacity: Current Capacity: Planned Capacity: Connecticut Light & Power Co; Fletcher Electric Light Co Inc Utilities in County: D. ENVIRONMENTAL BENEFITS OF UTILIZATION Potential Current Methane Reduction (tons/yr): CO2 Equivalent of CH4 Reduction (tons/yr): Emissions Avoided by Fossil Fuel Displacement: Electricity Generation Project Direct Use Project CO2 (tons/yr) SO2 (tons/yr) CO2 (tons/yr) SO2 (tons/yr) Coal: Fuel Oil: Natural Gas: E. CONTACT INFORMATION Landfill Owner Landfill Operator Contact Name: Louise Guarnaccia, Superintendent Mailing Address: 41 Center Street Phone Number: 203-647-3248 203-647-3248 Fax Number:

^{*} Itallicized indicates values estimated by EPA. December 5, 1998 State: CT Page:



New Haven LF Landfill Category: Candidate A. GENERAL LANDFILL INFORMATION Landfill Owner: City of New Haven Annual Acceptance Rate (tons): 72,800 Landfill Owner Type: Public Year Annual Acceptance Rate Reported: Alternative Landfill Name: Design Capacity (tons): City: New Haven Acres Currently Landfilled (acres): 24 County: New Haven Average Depth (feet): State: CTWaste-in-Place (tons): Year Open: 1998 Waste-in-Place (tons): Year Closed: 1993 **B. LANDFILL GAS COLLECTION** Estimated Methane Generation (mmscf/d): LFG Collection System Status: Current LFG Collected (mmscf/d): Collection and Treatment System Required Under NSPS/EG: No C. LANDFILL GAS UTILIZATION Current Utilization: **Utilization System Status:** Planned Utilization System Type: Unknown Utilization System Start Year: 2000 Electric Utility Provider(s): Natural Gas Provider(s): Energy Purchaser(s): United Illuminating Capacity: Electricity Generation Project (MW) OR Direct Use Project (mmBtu/hr) Estimated Potential Capacity: Current Capacity: Planned Capacity: Connecticut Light & Power Co; United Illuminating Company; Wallingford Electric Div Utilities in County: D. ENVIRONMENTAL BENEFITS OF UTILIZATION Potential Current Methane Reduction (tons/yr): CO2 Equivalent of CH4 Reduction (tons/yr): Emissions Avoided by Fossil Fuel Displacement: Electricity Generation Project Direct Use Project CO2 (tons/yr) SO2 (tons/yr) CO2 (tons/yr) SO2 (tons/yr) Coal: Fuel Oil: Natural Gas: E. CONTACT INFORMATION Landfill Owner Landfill Operator Contact Name: Brian Funk, Acting Dir., Public Works Brian Funk Mailing Address: 34 Middletown Avenue 34 Middletown Avenue Phone Number: 203-787-6345 203-946-8101 Fax Number:

* Itallicized indicates values estimated by EPA. December 5, 1998 State: CT Page: 5



			New Milford LF			Landfill Catego	ry: Current
		A. Gl	ENERAL LANDFILL INF	ORMAT	ION		
Landfill Owner:			Annı	ıal Accep	tance Rate (tons):		300,000
Landfill Owner Type:	Public			_	Acceptance Rate F		1994
Alternative Landfill Na	nme: New M	lilford Gas Recov	very Desi	gn Capaci	ty (tons):	-	6,238,752
City:	New M	lilford	Acre	s Currentl	y Landfilled (acre	es):	75
County:	Litchfie	eld	Aver	age Depth	(feet):		90
State:	CT		199:	5 Waste-ir	n-Place (tons):		6,700,000
Year Open:	1987		1998	Waste-in	-Place (tons):		7,300,000
Year Closed:	1997						
		F	3. LANDFILL GAS COLL	ECTION			
Estimated Methane Ge	neration (mmsc	f/d):		2.29			
LFG Collection Systen	n Status:		Operat	ional			
Current LFG Collected	(mmscf/d):			2.8			
Collection and Treatme	ent System Requ	uired Under NSP	S/EG:	No			
			C. LANDFILL GAS UTILI	ZATION	ſ		
Current Utilization:							
Utilization System	ı Status:	Operational					
Utilization System		Gas Turbine					
Utilization System		1991					
Electric Utility Pro							
Natural Gas Provi							
Energy Purchaser	(s):	Connecticut	Light & Power Co				
			-				
Capacity:		Electricit	y Generation Project (MW)	(DR Dire	ect Use Project (mmBtu	ı/hr)
Estimated Potenti	al Capacity:			7			71
Current Capacity:				3.3			58
Planned Capacity:							
Utilities in County:		Connecticut	Light & Power Co				
		D. ENVIR	ONMENTAL BENEFITS	OF UTII	LIZATION		
			Potenti	al		Current	
Methane Reduction (to	ns/vr):				13,212		10,792
CO2 Equivalent of CH		ns/vr):		2	277,448		226,638
		J. 7.					
Emissions Avoided by I	Fossil Fuel Dis _l	placement:	Electricity Generat	on Projec	rt	Direct Use Proj	iect
			CO2 (tons/yr)	SO2 (tor	is/yr)	CO2 (tons/yr)	SO2 (tons/yr)
		Coal:	56,039		354	39,786	362
		Fuel Oil:	45,994		296	32,654	190
	N	latural Gas:	30,927		0	21,957	0
			E. CONTACT INFORM	ATION		<u> </u>	
		Landfill (111011	La	andfill Operator	
Contact Name:	Bill Howard, F	Environmental Er	gineer			<u> </u>	
Moiling Add.							
Mailing Address:	182-2 Danbury	/ Koad					
Phone Number:	203-350-2222			203.3	50-2222		
	203-33 0- 2222			203-3	JV-LLLL		
Fax Number:							

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* Itallicized indicates values estimated by EPA. December 5, 1998



			Shelton LF			Landfill Ca	tegory: Ca	andidat
		A. GE	NERAL LANDFILL II	NFORMA	TION	-		
Landfill Owner:			A	nnual Acce	eptance Rate	(tons):		
Landfill Owner Type	e: Public		Y	ear Annual	l Acceptance	Rate Reported:		
Alternative Landfill	Name:		D	esign Capa	acity (tons):			
City:	Shelton	1	Acres Currently Landfilled (acres):					
County:	Fairfiel	ıd	Average Depth (feet): 17					
State:	CT		1995 Waste-in-Place (tons): 2,000,00					
Year Open:	1990		1998 Waste-in-Place (tons): 2,000					00,000
Year Closed:	1994							
		В.	LANDFILL GAS COI	LLECTIO	N			
Estimated Methane	Generation (mmsc	f/d):		0.93				
LFG Collection Syst	em Status:		Ope	rational				
Current LFG Collect	ed (mmscf/d):			1.2				
Collection and Treat	ment System Req	uired Under NSPS	/EG:	No				
		C.	LANDFILL GAS UT	LIZATIO)N			
Current Utilization:								
Utilization Syst	em Status:	Shutdown						
Utilization Syst	em Type:	Reciprocating	Engine					
Utilization Syst	em Start Year:	1995						
Electric Utility	Provider(s):							
Natural Gas Pro	vider(s):							
Energy Purchas	er(s):	United Illumin	nating					
Capacity:		Electricity	Generation Project (MV	W)	OR	Direct Use Project (mi	mBtu/hr)	
Estimated Poter	ıtial Capacity:			3				29
Current Capacit	y:							
Planned Capaci	ty:			1.7				25
Utilities in County:		Connecticut L	ight & Power Co; Norw	alk Third	 Γaxing Distric	ct, Electric Dept; South N	Norwalk Ele	ec W
		D. ENVIRO	NMENTAL BENEFI	TS OF UT	TILIZATION	ı		
			MINIENTIAL DENTER I					
						Curi	ent	
Methane Reduction (tons/yr):			ential	5,374	Curi	rent	4,625
Methane Reduction (CO2 Equivalent of C	- ·	ns/yr):			5,374 112,858	Curi		4,625 97,131
CO2 Equivalent of C	CH4 Reduction (to		Pote	ential	112,858		,	
	CH4 Reduction (to		Pote Electricity Gener	ential ration Proj	112,858 ject	Direct Use	Project	97,131
CO2 Equivalent of C	CH4 Reduction (to		Pote	ential ration Proj	112,858		,	97,131
CO2 Equivalent of C	CH4 Reduction (to		Pote Electricity Gener	ential ration Proj	112,858 ject	Direct Use	Project	97,131
CO2 Equivalent of C	CH4 Reduction (to	placement:	Pote Electricity Gener CO2 (tons/yr)	ential ration Proj	112,858 ject tons/yr)	Direct Use CO2 (tons/yr)	Project	97,131 ons/yr)
CO2 Equivalent of C	TH4 Reduction (to	placement: Coal:	Electricity General CO2 (tons/yr) 22,889 18,786	ential ration Proj	112,858 iect tons/yr) 145	Direct Use CO2 (tons/yr) 16,184 13,283	Project	97,131 ons/yr) 147
CO2 Equivalent of C	TH4 Reduction (to	Coal: Fuel Oil: latural Gas:	Electricity General CO2 (tons/yr) 22,889 18,786 12,632	ential ration Proj SO2 (1	112,858 iect tons/yr) 145 121 0	Direct Use CO2 (tons/yr) 16,184	Project	97,131 ons/yr) 147 77
CO2 Equivalent of C	TH4 Reduction (to	Coal: Fuel Oil: Jatural Gas:	Electricity General CO2 (tons/yr) 22,889 18,786 12,632 E. CONTACT INFOR	ential ration Proj SO2 (1	112,858 iect tons/yr) 145 121 0	Direct Use CO2 (tons/yr) 16,184 13,283 8,932	Project	97,131 ons/yr) 147 77
CO2 Equivalent of C	CH4 Reduction (today) y Fossil Fuel Disp	Coal: Fuel Oil: Vatural Gas:	Electricity General CO2 (tons/yr) 22,889 18,786 12,632 E. CONTACT INFOR	ential ration Proj SO2 (1	112,858 iect tons/yr) 145 121 0	Direct Use CO2 (tons/yr) 16,184 13,283	Project	97,131 ons/yr) 147 77
CO2 Equivalent of C	TH4 Reduction (to	Coal: Fuel Oil: Vatural Gas:	Electricity General CO2 (tons/yr) 22,889 18,786 12,632 E. CONTACT INFOR	ential ration Proj SO2 (i	112,858 iect tons/yr) 145 121 0	Direct Use CO2 (tons/yr) 16,184 13,283 8,932	Project	97,131 ons/yr) 147 77
CO2 Equivalent of C	CH4 Reduction (today) y Fossil Fuel Disp	Coal: Fuel Oil: Vatural Gas: Landfill O	Electricity General CO2 (tons/yr) 22,889 18,786 12,632 E. CONTACT INFOR	ential ration Proj SO2 (i	112,858 iect tons/yr) 145 121 0	Direct Use CO2 (tons/yr) 16,184 13,283 8,932	Project	97,131 ons/yr) 147 77
CO2 Equivalent of C Emissions Avoided b Contact Name:	CH4 Reduction (today y Fossil Fuel Disp N Carlo Berardin	Coal: Fuel Oil: Vatural Gas: Landfill O	Electricity General CO2 (tons/yr) 22,889 18,786 12,632 E. CONTACT INFOR	ential ration Proj SO2 (i	112,858 iect tons/yr) 145 121 0	Direct Use CO2 (tons/yr) 16,184 13,283 8,932	Project	97,131 ons/yr) 147 77

^{*} Itallicized indicates values estimated by EPA. December 5, 1998 State: CT Page: 7



Fax Number:

			Windsor LF	0.53.54.5	7017	Landfill Car	tegory: Candidate
		A. G	ENERAL LANDFILL INF	ORMAT	ION		
Landfill Owner:		of Windsor		ual Accep	34,000		
Landfill Owner Type:	Public				-	Rate Reported:	1994
Alternative Landfill N		or-Bloomfield Ll		gn Capaci	69		
City:	Windso			Acres Currently Landfilled (acres):			
County:	Hartfor	d		age Depth			
State:	CT				n-Place (tons	,	1,268,000
Year Open:	1973		1998	8 Waste-in	-Place (tons):	1,404,000
Year Closed:	2004	1		ECTION	r		
B. LANDFILL GAS COLLECTION							
Estimated Methane Generation (mmscf/d):				0.78			
LFG Collection System			Pla	inned			
Current LFG Collected	,						
Collection and Treatm	ent System Requ			No			
			C. LANDFILL GAS UTIL	IZATION	N .		
Current Utilization:							
Utilization Syster	n Status:	Planned					
Utilization Syster	n Type:	Unknown					
Utilization Syster	n Start Year:	2000					
Electric Utility Pr	ovider(s):						
Natural Gas Prov	ider(s):						
Energy Purchaser	(s):						
Capacity:		Electrici	ty Generation Project (MW)	(OR	Direct Use Project (mr	nBtu/hr)
Estimated Potenti	al Canacity:			2		-	24
Current Capacity:				-			24
Planned Capacity							
	•						
Utilities in County:			Light & Power Co; Fletcher		_		
		D. ENVII	RONMENTAL BENEFITS	OF UTII	LIZATION		
			Potent	ial		Curr	ent
Methane Reduction (to	ons/yr):				4,493		0
CO2 Equivalent of CH	4 Reduction (to	ns/yr):			94,351		0
Emissions Avoided by	Fossil Fuel Diss	Jacomonti	Electricity Generat	ion Duoise	at .	Direct Use	Project
Emissions Avoided by	rossu ruei Disp	насетені.	CO2 (tons/yr)	SO2 (toi		CO2 (tons/yr)	SO2 (tons/yr)
				302 (101			502 (10115/91)
		Coal:	18,943		120	13,530	123
		Fuel Oil:	15,547		100	11,105	65
	N	atural Gas:	10,454		0	7,467	0
			E. CONTACT INFORM	ATION			
		Landfill	Owner			Landfill Operator	
Contact Name:	Tom Rasmusse	en, Superintende	nt	Tom	Rasmussen		
Mailing Address:	500 Huckleber	-		275 D	Broad Street		
Maining Address:	Joo nuckieber	ry Noau		2/3 B	noau siieel		
Phone Number:	202 205 1922			202.2	05 1022		
	203-285-1833			203-2	85-1833		
Fax Number:							

* Itallicized indicates values estimated by EPA. December 5, 1998 State: CT Page: 8

